

S.N.: 10/798,815
Art Unit: 2878

AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawings includes changes to Figs. 1A, 2A, and 3A, and replaces the original sheets of drawings corresponding to these figures. In Figs. 1A, 2A, and 3A, the previously omitted part number 11, referring to embodiments in which the systems 10 are incorporated into handheld devices 11, such as mobile phones, digital cameras, and PDAs, has been added.

Attachment: Replacement Sheets for Figures 1A, 1B, 2A, 2B, 3A, 3B (three sheets)
Annotated Sheet Showing Changes for Figures 1A, 1B, 2A, 2B, 3A, 3B (three sheets)

S.N.: 10/798,815
Art Unit: 2878

REMARKS

Claims 1 and 6-29 are currently pending. It is respectfully submitted that no new matter has been added.

The Patent Office objected to the drawings under 37 CFR 1.83(a). Replacement sheets are being provided in which system 10 is shown incorporated into a portable handheld device 11, which may be a digital camera, a mobile phone, or a PDA. Additionally, the specification, on page 5, lines 3-6, has been rearranged. It is respectfully submitted that no new matter has been added.

The Patent Office rejected claims 14, 15, and 25-27 under 35 U.S.C., 112, first paragraph, as failing to comply with the enablement requirement. By the replacement drawing sheets, Applicant shows that the systems of Figures 1A, 2A, and 3A are housed within a device 11 that may be a digital camera, a mobile phone, or a PDA. Presumably, one of ordinary skill would know how to modify a handheld device, such as a digital camera, a mobile phone, or a PDA, to include the system of the claimed invention. Figures 1A, 2A, and 3A show a processor that may be connected to other component parts associated with a camera or communications. The first paragraph of page 5 of Applicant's specification provides further enablement for these claims. It is respectfully submitted that claims 14, 15, and 25-27 are enabled by Applicant's disclosure and respectfully requested that the Patent Office withdraw its rejection of these claims under 35 U.S.C. 112, first paragraph.

The Patent Office rejected claims 1, 6-23, and 25 under 35 U.S.C. 102(b) as being anticipated by Fujii, U.S. Published Patent Application No. 2002/0122121.

The Patent Office rejected claims 24 and 26-29 under 35 U.S.C. 103(a) as being unpatentable over Fujii.

For a claim to be anticipated, each and every claim limitation that is non-inherent must be disclosed by a reference (MPEP 2131).

Claim 1 recites "A system for displaying an image captured by a sensor array, the system comprising a buffer for storing an output from a first plurality of sensors of a sensor array; means for processing the stored output to create an image corresponding to an output from a plurality of sensors within a first area of the sensor array, wherein the plurality of sensors within the first area of the sensor array are a subset of the first plurality of sensors; means for displaying the image; a

memory for receiving and storing the image; and means for changing the image displayed by translating the first area.”

Claim 12 recites “A method for displaying an image, the method comprising temporarily storing an output from a first plurality of sensors of a sensor array; processing the stored output to create an image corresponding to an output from a plurality of sensors within a first area of the sensor array, wherein the plurality of sensors within the first area of the sensor array are a subset of the first plurality of sensors; displaying the image corresponding to an output from the plurality of sensors within the first area of the sensor array; receiving and storing the image in a memory; and displaying a different image in response to a user input that is equivalent to translating the first area within the sensor array.”

Claim 13 recites “A system for displaying an image, the system comprising a buffer for storing an output from a first plurality of sensors of a sensor comprising an $N \times M$ array of light sensors, a processor for processing the stored output to create an image comprising an $n \times m$ array of pixels corresponding to an output from an $n \times m$ subset of the $N \times M$ array of light sensors, wherein the $n \times m$ subset of light sensors are a subset of the first plurality of sensors, and for controlling a display to display the image, wherein the corresponding $n \times m$ subset is changeable in response to a user input to vary the image for display; and a memory for receiving and storing the image.”

Fujii discloses a digital camera 1 which includes a CCD camera 303 (having 1600 X 1200 pixels) and an LCD 10 (having 400 X 300 pixels). With reference to Fig. 5, when the CCD 303 captures an image, it is provided to the signal processing circuit 313 that performs processes on it (e.g. noise reduction). The image is then provided to an image processing unit 200 where it is converted into a digital signal and processed (e.g. gamma correction is performed). The output of the image processing unit 200 is provided to an image memory 209 which has a storage capacity corresponding to one frame, i.e. the image memory 209 has a storage capacity of pixel data corresponding to 1600 X 1200 pixels.

An entire system control unit 211 can access the image memory 209 and process the stored image. As mentioned in paragraph 96, the control unit 211 is arranged to read all of the pixel data stored in the image memory 209 and write it to a memory 91 for storage. The control unit 211 is also arranged to output the image data to the VRAM 210 that is a buffer memory for

S.N.: 10/798,815
Art Unit: 2878

image data that is to be reproduced and displayed on the LCD 10. As mentioned in paragraph 78, images are displayed on the LCD 10 such that a live view display is provided. As mentioned in paragraph 79, in this live view display the control unit 200 'thins' the 1600 X 1200 pixels in the image memory 209 by a quarter and transfers the resulting 400 X 300 pixel image to the VRAM 210. If an 'enlarged display button' 224 is pressed, image data corresponding to 400 X 300 pixels within the image memory 209 is cut out and transferred to the VRAM 210 for display on the LCD 10.

In order to allow a user to select where the image should be focussed to, an AF cursor is displayed on the LCD 10. The position of the AF cursor determines where the image is focussed. The position of the cursor may be controlled by a cross switch 230 (see Fig. 2).

As mentioned in paragraph 140, if the AF cursor is moved towards the end of the screen when the enlarged display mode is activated, the enlarged display area may be shifted and displayed in a manner so as to follow the AF cursor in its shifting direction.

From a review of the outstanding office action, the Patent Office equates the buffer of claim 1 with the signal processing circuit 313, the 'means for processing' of claim 1 with the image processing unit 200 and the 'means for changing the image displayed by translating the first area' with the enlarged display button 224.

It appears that the Patent Office's above analysis is incorrect since the signal processing circuit 313 does not function as a "buffer for storing an output from a first plurality of sensors of a sensor array". As mentioned in paragraph 65, the signal processing circuit 313 performs processing functions on the image signal and does not provide storage for image data.

Additionally, there is no disclosure in Fujii that the image processing unit 200 is arranged to "create an image corresponding to an output from a plurality of sensors within a first area of the sensor array, wherein the plurality of sensors within the first area of the sensor array are a subset of the first plurality of sensors". As mentioned in paragraph 72, Fujii merely discloses that the image processing unit 200 converts the image signal into a digital signal. It appears that this digital signal still corresponds to the original 1600 X 1200 pixels since a 1600 x 1200 pixel image is stored in the image memory 209.

Furthermore, there is no disclosure in Fujii that pressing the enlarged display button 224 is "for changing the image displayed by translating the first area". Fujii merely discloses that a

S.N.: 10/798,815
Art Unit: 2878

400 X 300 set of pixels is cut out of the image stored in the image memory 209 and is provided to the LCD 10 when the user presses the button 224. There is no disclosure that by pressing the button 224 the 400 X 300 set of pixels may be translated.

Fujii also does not disclose “a memory for receiving and storing the image” (i.e. the image representing only the first area). In Fujii, the memory 91 only appears to receive the total captured image, i.e. the 1600 X 1200 pixels captured by the CCD 303. Fujii does not appear to disclose that the 400 X 300 pixels which are cut out when the enlarged display button 224 is pressed may be stored in the memory 91.

Embodiments of the present invention provide an advantage in that an image corresponding to only a subset of the sensor array may be stored in the memory. A user of the system may translate the subset within the array of sensors in order to choose the image he would like to store. Hence, a user may store an image without having to physically move the camera in inclination and/or bearing because he can translate the subset instead.

It would not be obvious to a person skilled in the art to adapt the teaching of Fujii to fall within the scope of the independent claims because Fujii provides a contrary teaching. Fujii teaches that the whole image (having 1600 X 1200 pixels) captured by the CCD 303 and stored in the image memory 209 should be stored in the memory 91 (see paragraphs 93 and 96).

The Patent Office is respectfully requested to reconsider and remove the rejections of the claims 1 and 6-29 under 35 U.S.C. 102(b) or 103(a) based on Fujii, and to allow all of the pending claims 1 and 6-29 as now presented for examination. An early notification of the allowability of claims 1 and 6-29 is earnestly solicited.

S.N.: 10/798,815
Art Unit: 2878

Respectfully submitted:

Walter J. Malinowski September 6, 2006
Walter J. Malinowski Date

Reg. No.: 43,423

Customer No.: 29683

HARRINGTON & SMITH, LLP
4 Research Drive
Shelton, CT 06484-6212

Telephone: (203) 925-9400, extension 19
Facsimile: (203) 944-0245
email: wmalinowski@hspatent.com

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450.

9-6-06 Ann Orentowicz
Date Name of Person Making Deposit

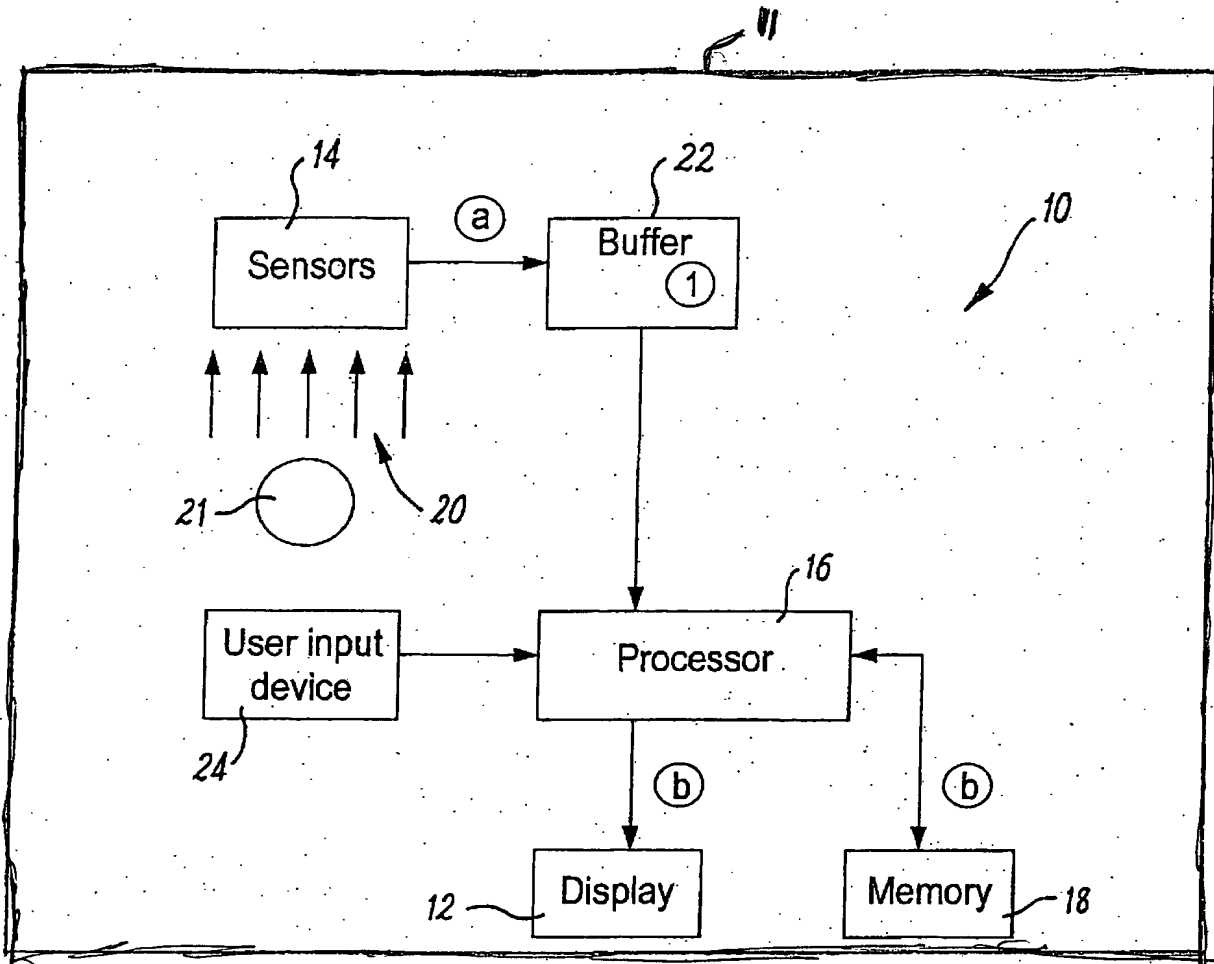


FIG. 1A

		N (a)						n (b)	
M		1	2	3	4	m		3	4
		5	6	7	8				
		9	10	11	12			7	8
		13	14	15	16				

FIG. 1B

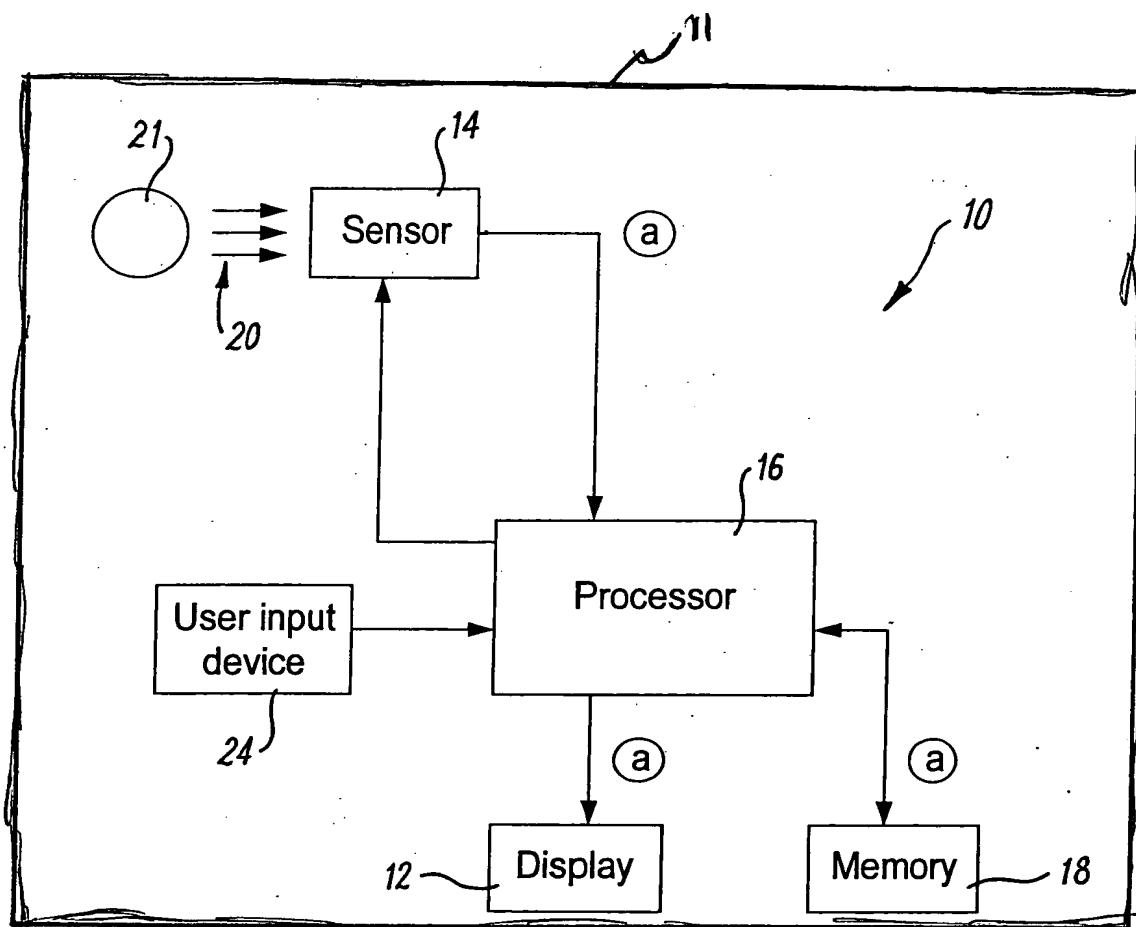


FIG. 2A

n (a)

	3	4
m	7	8

FIG. 2B

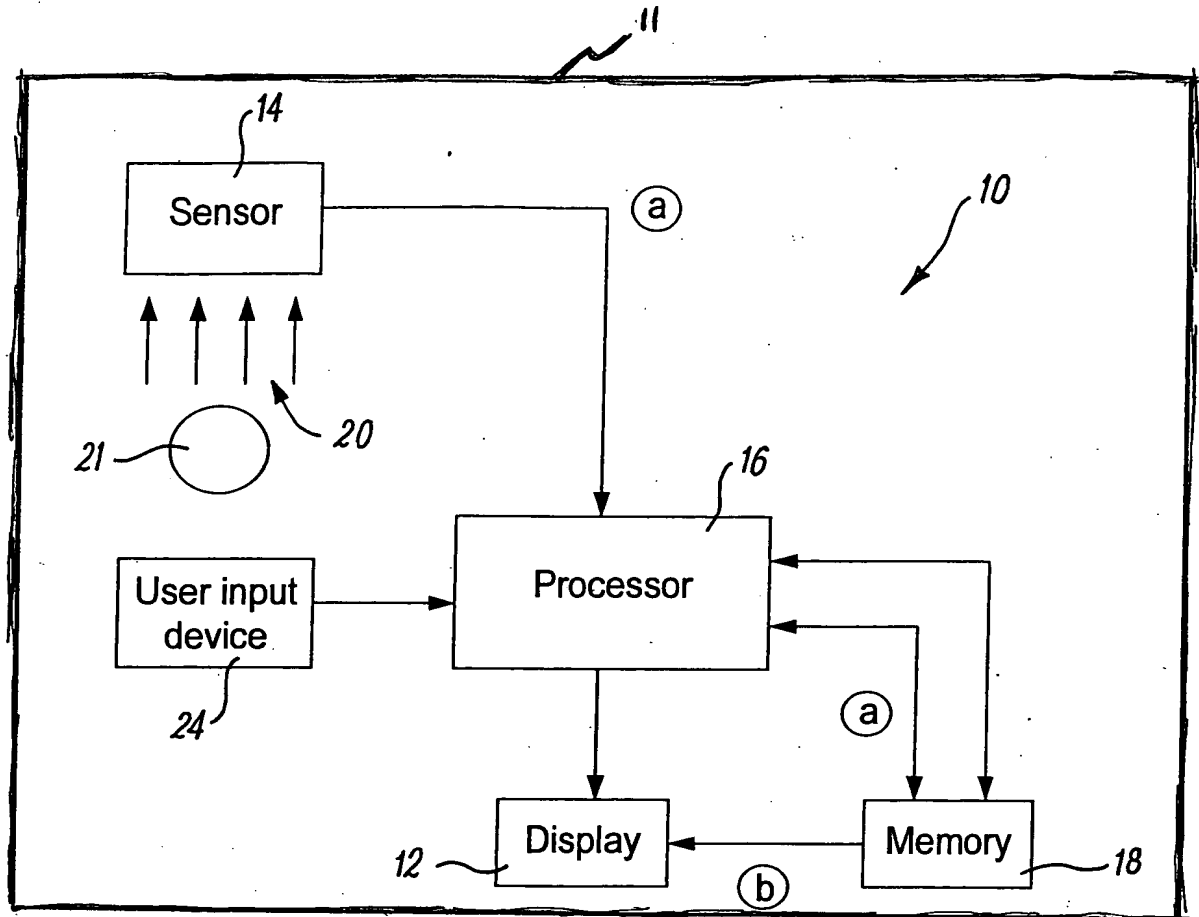


FIG. 3A

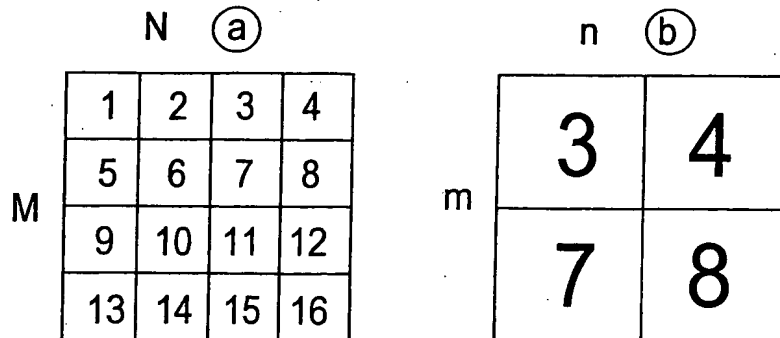


FIG. 3B